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Examiner Laura B. Rosenberg
Art Unit 3616

REMARKS

The invention of this application, as defined by the claims, is a telescoping steering column assembly. As such it is designed and configured to enable relative sliding movement between the outer jacket and the inner jacket, with an intermediate rib-bearing sleeve that eliminates lash and promotes smooth telescoping action by compensate for tolerance variations between the outer and inner jackets. The cited prior art shows no such structure as described and claimed. See, for example, claim 1: "...the assembly configured for relative telescoping movement between the outer jacket and the inner jacket;...".

Claims 1-3, 5-13, 15-24, 26 and 28-30 were rejected under 35 U.S.C. 102(b) as anticipated by Milton, U.S. patent No. 3,703,105 ("Milton"). Milton discloses a fixed collapsible shift tube assembly designed to rotate with the shift lever on a steering column. It is not a telescoping steering column as claimed in this application. Shift tubes were used in vehicles with manual shift operation on the steering column (rather than on the floor). The steering column does not telescope due in part to the presence of the shift lever 71 on the steering column. The shift tube design has a shear a sleeve member 34 at a predetermined load, thus allowing the column assembly to collapse in a crash when impacted by the driver. The locking sleeve 54 has ribs 88 which are received within slots 74 of the lower member 52 to "provide a firm and rigid engagement between the sleeve 54 and the upper and lower members 50 and 52. See, Milton, col. 6, lines 31-33. The locking sleeve 54 is deformable in one of three ways upon relative axial movement between the upper and lower members 50 and 52 as shown in Figs. 3-6. The knife edge 76 of the slots 74 of the lower member 52 can shear and/or deform the projections 88 of the locking sleeve 54. Alternatively, the knife edges 58 at the upper side of the slots 56 can shear the tabs 86 and the lower end 57a can shear the flange 96 of the sleeve 54. Or both of these actions can occur simultaneously.

The entire purpose of the Milton shift column is to maintain static engagement until a collapsing force is applied. Once the locking sleeve 54 is locked, there can be no relative movement between it and the upper member 50.

"When the tabs 86 are aligned with the slots 56, the locking sleeve 54 contracts to its former size due to its resilient properties and the projections 86 are received within the slots 56 to attach the sleeve 54 upon the upper member 50." Milton, col. 6, lines 3-7.

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"The engagement between the upper and lower members resulting from the reception of the tabs 86 within the slots 56 and the impressions 88 within the slots 74 is primarily intended to prevent relative angular movement between the upper and lower members 50 and 52 and provides only an incidental or additional restraint to the axially inward collapse of the shift tube assembly 10." Col. 7, lines 21-28.

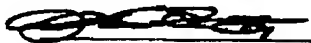
The tabs 86, located within slots 56, are not in contact with the outer surface of a sleeve (upper member 50), and do not equate to the structure of an "internal rib" as defined by claims 1, 11, 21 and 30. In the operative position, with the tabs 86 received within the slots 56, there is no "outer surface of the sleeve which contacts the inner surface of the of the outer jacket located on at least one external rib" as defined by claim 1.

The rejection of claims 1, 6, 11, 16, 19-22, 24, 27, 29 and 30 as anticipated by Ulintz, U.S. Patent No. 6,729,648, is not understood. The bearing sleeve 22 of Ulintz has no internal or external ribs. A spherical element held by the bearing sleeve is not a rib, not in the mechanical/structural sense of the word, or as described by the specification of this application. All of the independent claims, 1, 11, 21 and 30 of this application include the limitations of internal and external ribs on the sleeve. Therefore, none of the claims of the application are anticipated by the Ulintz '648 patent.

The rejection of claims 4, 14 and 25 under 35 U.S.C. 103(a) as unpatentable over Ulintz in view of Barton, U.S. Patent No. 6,389,923 is obviated by the noted differences of the Ulintz patent from the claimed invention.

Respectfully submitted,
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